

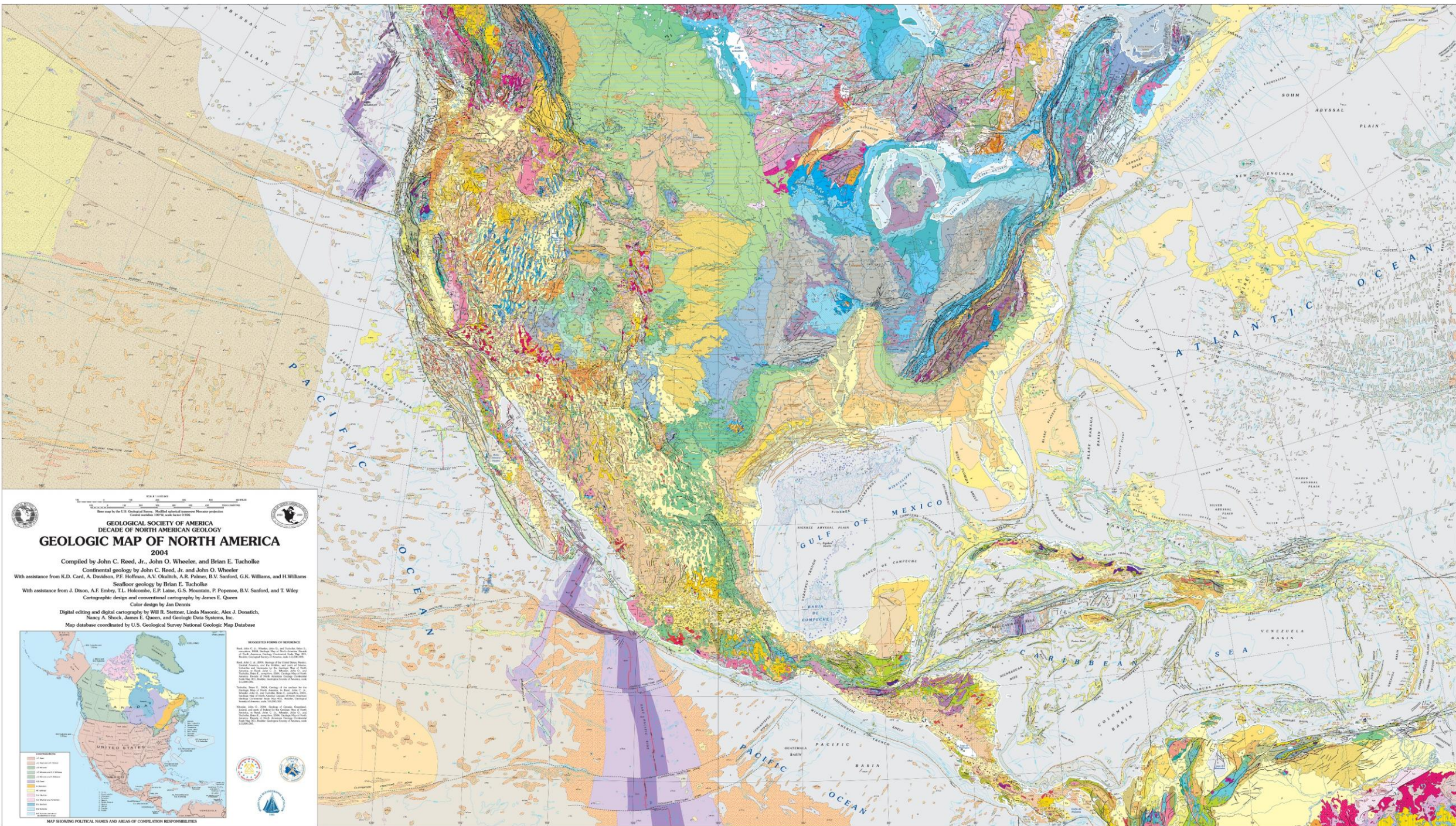
NGAC; September 2019; Lightning talk



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National Geologic Map Database Phase Three

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GEOLOGICAL SOCIETY OF AMERICA
DECADE OF NORTH AMERICAN GEOLOGY
GEOLOGIC MAP OF NORTH AMERICA
2004

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Map database coordinated by U.S. Geological Survey National Geologic Map Database






MAP SHOWING POLITICAL NAMES AND AREAS OF COMPILATION RESPONSIBILITIES

ABBREVIATED FORMS OF REFERENCE

For a full list of abbreviations used on this map, see the complete list of abbreviations in the *Geological Society of America Bulletin*, Volume 116, Number 1, pages 1-10, 2004.

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National Geologic Map Database Phase Three

- **Around the world, systematic geological mapping of sediments and rocks has been an important activity for over two centuries**
- **The mapping is needed to guide activity related to energy, minerals, water, hazards, infrastructure design, and earth science research**



National Geologic Map Database Phase Three

- In the US, the National Geologic Mapping Act of 1992 mandated the National Cooperative Geologic Mapping Program, whose product is the National Geologic Map Database, which is co-managed by US Geological Survey (USGS) and the Association of American State Geologists (AASG)
- The National Geologic Map Database (NGMDB) Phase One publication catalog is mature, the Phase Two standards are complete, and Phase Three GIS database pilots are complete



National Geologic Map Database Phase Three

- **It therefore is time to launch NGMDB Phase Three, as the queryable, seamless, zoomable 3D geology for the Nation that is needed for analyses and applications**
- **In the US, solid-earth-material mapping is the responsibility of the National Cooperative Soil Survey (NCSS), and the National Cooperative Geologic Mapping Program (NCGMP)**



National Geologic Map Database Phase Three

- **NCSS has shifted from static, printed soil survey reports to providing a dynamic soils database; since the 1990s, USGS planning has called for seamless 3D geological mapping**
- **The NCGMP draft Decadal Strategic Plan therefore has outlined a vision for the year 2030 to construct the national 3D geologic model that is needed by the people of the Nation**



National Geologic Map Database Phase Three

- The NGMDB Phase Three database is to be: 1) built from edge-matched geologic maps; 2) managed and accessed as a coherent body of map information, not just as a set of discrete map products; 3) updated on the fly with new information; 4) standardized according to data model and terminology; and 5) available via browsers and common GIS tools
- Many states are active in digitizing and building seamless geologic mapping databases, so it can now be foreseen that refined statewide databases will be contributed to NGMDB Phase Three, and not maps



National Geologic Map Database Phase Three

- In spring 2019, both the US House of Representatives and AASG therefore called for immediate implementation of NGMDB Phase Three as a queryable, seamless, zoomable 3D geology for the Nation, thus a key element for fulfillment of the NCGMP Plan
- The House recommended a \$10M increase to support launch of NGMDB Phase Three, and also specified an additional \$5M for work with State Surveys to develop this 3D Geologic Map GIS Database, and to migrate current and prior geologic mapping to a common data standard



National Geologic Map Database Phase Three

- **Concurrently, AASG unanimously adopted a resolution at their June 2019 Annual Meeting that also called for immediate implementation of NGMDB Phase Three**
- **The AASG proposed plan for this queryable, seamless, zoomable, 3D Phase Three database calls for it to be built from 10 components, at 3 levels of resolution, during 4 phases of work over a 12-year period, on a coordinated basis by the 2 levels of government**



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